

REMARKS

Claims 53-62 have been cancelled and new claims 63-84 have been added. Claims 63-84 are pending in the application.

No new matter has been added through the addition of claims 63-84. Claims 63-84 are supported, for example, at Figs. 3-6 and pages 7-10 of the Specification.

Claims 63-84 are also believed to be allowable over the cited references. For example, claim 63 is believed allowable for at least the reason that it recites a plurality of silicon-comprising emitter tips, at least one of the emitter tips being substantially conical and comprising a tip portion supported by a frustrum portion with the tip and frustrum portions including sidewalls. Claim 63 further recites a coating over the tip portion without the coating being over the frustrum portion sidewalls, the coating including a first material having a lower work function than silicon. The cited references do not teach or suggest these features. With particular reference to Fig. 107 of Jones, to the extent a coating is taught, the coating extends over the frustrum portion of the emitter tip. Neither Takemura nor the remaining cited references teach the coating of an emitter tip with a material having a lower work function than silicon. Because the cited references neither teach nor suggest the features of claim 63, claim 63 is allowable. Claims 64-77 depend from claim 63 and are allowable for at least the reasons stated above regarding claim 63.

As another example, claim 77 is believed allowable for at least the reason that it recites a cathode assembly that includes material over a substrate and between at least two substantially conical emitter tips with the material having an upper surface contacting the frustrum portion sidewall without contacting the tip portion sidewall of the emitter tips. Claim 77 further recites that an entirety of the upper surface of the material is exposed.

Because the cited references neither teach nor suggest this assembly, claim 77 is allowable. Claims 79-84 depend from claim 78 and are allowable for at least the reasons stated above regarding claim 78.

Claims 63-84 are believed to be in immediate condition of allowance, and it is therefore requested that the Examiner's next action be a notice of allowance.

Respectfully submitted,

Dated: 10/13/03

By: 

Robert C. Hyta
Reg. No. 46,791

--END OF DOCUMENT--